

## CLAIMS

1. Wrapping machine for wrapping a plastic foil web around an object to be packaged, said wrapping machine comprising

- 5                   - a machine frame supported on a fixed base and comprising upright vertical columns,
- a lifting frame arranged to be vertically movable upwards and downwards and guided by the vertical columns,
- a lifting motor for moving the lifting frame,
- 10               - power transmission means for the transmission of power from the lifting motor to produce vertical motion of the lifting frame, said power transmission means comprising elongate flexible drive elements and wheels for the transmission of the power of the lifting motor to the drive elements,
- a foil dispenser, on which a foil web roll can be rotatably mounted,
- 15   said foil dispenser being arranged to circulate on a ring-like path about the object to be packaged for delivering a plastic foil web from the foil web roll to form a wrapping around the object to be packaged, c h a r a c t e r i z e d in that the lifting motor is secured to the lifting frame so as to be movable with it; that the wheels comprise a drive belt pulley fitted for reeling a flat belt, said drive belt
- 20   pulley being rotatably mounted on bearings on the lifting frame and rotated by the lifting motor; and that each one of the elongate drive elements consists of a drive belt whose first end is secured to the upper end of the vertical columns while the second end is secured to the drive belt pulley.

- 25               2. Wrapping machine according to claim 1, c h a r a c t e r - i z e d in that the wrapping machine comprises four vertical columns, arranged in a rectangular configuration at the corners of a rectangle at a distance from each other; and that the lifting frame has the form of a substantially rectangular frame and arranged in a horizontal orientation within the area defined by the vertical
- 30   columns.

3. Wrapping machine according to claim 1, c h a r a c t e r -  
i z e d in that the lifting frame comprises an equipment box, whose interior  
space is defined below by a bottom, laterally by side walls and above by a cover,  
and that the lifting motor is mounted in said interior space.

5           4. Wrapping machine according to claim 1, c h a r a c t e r -  
i z e d in that the lifting frame comprises two parallel elongate lateral frame  
parts, each extending horizontally between two vertical columns; and that the  
drive belt pulley is mounted in a position aligned with a lateral frame part and a  
diverting pulley is provided at each end of the two lateral frame parts, the drive  
10 belt coming from the drive belt pulley being passed over the respective diverting  
pulley to the upper end of the vertical column.

5. Wrapping machine according to claim 1, c h a r a c t e r -  
i z e d in that the power transmission means comprise a drive shaft to which the  
15 lifting motor is coupled to rotate it, a drive belt pulley being mounted on each end  
of said drive shaft.

6. Wrapping machine according to claim 1, c h a r a c t e r -  
i z e d in that the wrapping machine comprises a circular ring arrangement,  
20 which forms the path of motion of the foil dispenser and which is so mounted on  
the lifting frame as to be vertically movable with it.

7. Wrapping machine according to claim 6, c h a r a c t e r -  
i z e d in that the circular ring arrangement comprises  
25           - a ring-like rotary frame suspended horizontally so that it is carried  
by the lifting frame and mounted on bearings on the lifting frame to allow it to  
rotate about its center, the foil dispenser being secured to said rotary frame to  
circulate with it, and  
             - a rotating motor for rotating the rotary frame.

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8. Wrapping machine according to claim 7, c h a r a c t e r - i z e d in that the rotating motor is placed in the interior space of the equipment box.

5 9. Wrapping machine according to claim 7, c h a r a c t e r - i z e d in that the wrapping machine comprises a control device for controlling the operation of the wrapping machine, such as the lifting motor and/or the rotating motor, and that the control device is placed in the interior space of the equipment box.

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10. Top foil wrapping machine, comprising:

- a machine frame supported on a fixed base and comprising upright vertical columns,
- a lifting frame arranged to be vertically movable upwards and  
15 downwards and guided by the vertical columns,
- a lifting motor for moving the lifting frame,
- power transmission means for the transmission of power from the lifting motor to produce a vertical motion of the lifting frame, said power transmission means comprising elongate flexible drive elements and wheels for the  
20 transmission of the power of the lifting motor to the drive elements,
- a top foil depositor arranged to deposit a top foil from a top foil web roll onto the object to be packaged, c h a r a c t e r i z e d in that the lifting motor is secured to the lifting frame so as to be movable with it; that the wheels comprise a drive belt pulley fitted for reeling a flat belt, said drive belt  
25 pulley being rotatably mounted on bearings on the lifting frame and rotated by the lifting motor; and that each one of the elongate drive elements consists of a drive belt whose first end is secured to the upper end of the vertical columns while the second end is secured to the drive belt pulley.

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11. Top foil wrapping machine according to claim 10, c h a r - a c t e r i z e d in that the top foil wrapping machine comprises four vertical

columns arranged in a rectangular configuration at the corners of a rectangle at a distance from each other; and that the lifting frame has the form of a substantially rectangular frame and arranged in a horizontal orientation within the area defined by the vertical columns.

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12. Wrapping machine according to claim 10, c h a r a c t e r - i z e d in that the lifting frame comprises an equipment box, whose interior space is defined below by a bottom, laterally by side walls and above by a cover, and that the lifting motor is mounted in said interior space.

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13. Wrapping machine according to claim 10, c h a r a c t e r - i z e d in that the lifting frame comprises two parallel elongate lateral frame parts, each extending horizontally between two vertical columns ; and that the drive belt pulley is mounted in a position aligned with a lateral frame part and a  
15 diverting pulley) is provided at each end of the two lateral frame parts, the drive belt coming from the drive belt pulley being passed over the respective diverting pulley to the upper end of the vertical column.

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14. Top foil wrapping machine according to claim 10, c h a r - a c t e r i z e d in that the power transmission means comprise a drive shaft to which the lifting motor is coupled to rotate it, a drive belt pulley being mounted on each end of said drive shaft.

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15. Top foil wrapping machine according to claim 10, c h a r - a c t e r i z e d in that the top foil depositor comprises  
- a depositor frame secured to the lifting frame,  
- supporting elements for rotatably supporting a top foil web roll on the depositor frame,  
- a holding device for holding the end of the top foil web,

- a horizontally movable gripping element for gripping the end of the top foil web, taking it from the hold of the holding device and drawing it over the object to be packaged, and

- a cutting device for cutting the top foil web drawn over the object.